

Cambridge High School Year 13 Physics Phy3 2009

Below is a list of problems that should be worked through as part of your revision programme.

All problems should be completed by the end of week 2 of Term 4.

A suggestion is you use a 1B5 exercise book, separate from your notes.

Standard	Topic	Yr 13 Physics Study Guide	Continuing Physics
AS 90526 Mechanical Systems	Translational Motion	P 91, nos. 1, 2, p 95 nos. 3, 4 P 100 nos. 2, 3, 4, 5	P 19 n0. 12
	Free body diagrams / circular motion	P 110 nos. 2, 3, 4, P 114 no. 3 P 118 nos. 2,3	P 10 no. 8 P12 no. 9 P 25 no. 4
	Rotational Motion	P 128 nos. 1, 2, 6	P 31 no. 1 p 41 nos. 2 - 5
	Rotational Inertia	P1 33- 5 nos. 1, 2, 3	
	Angular momentum	P 138 nos. 1, 3, 4, 6	P 35 no. 4 p 36 no. 5 P 38 no. 6
	Rotational energy	P 142 nos. 1, 2, 3	P 45 no. 8
	Simple Harmonic Motion	P 148 nos. 2, 3 P 153 nos. 1, 2, 3 P 158 nos. 2, 3, 4 P 164 nos. 2, 3, 5 P 172 nos. 1, 2, 4	P 47 no. 1 P 61 no. 4, 5
AS 90520 Wave systems	Superposition		
	Standing waves in strings	P 64 no 6 P 70 no2	P 75 no 8,9
	Standing waves in tubes	P 64 no 3, 5	P 76 no 10, P 80 no 4e P 81 no 5
	Beats	P 71 no 4 f	P 72 no 6,7
	Twin source interference	P 54 no 1, 4	
	Diffraction and diffraction grating	P 57 no 1,3,4	P 82 no 1 P2 96 no 1, 4a P 98 no 5 c, d, e
	Doppler	P 77 no 2 P78 no 6	P 94 no 10 P 99 no 6 a, c

P 2 of 2 do these problems as the topic is covered or soon after.

Standard	Topic	Yr 13 Physics Study Guide	Continuing Physics
AS 90523 Electrical systems	Kirchoff's rules And circuits, internal resistance and emf	P 210 nos. 1, 3, 4 P 215 nos. 2, 4, 6	P 105 no. 2 P 107 no. 6 P 108 nos. 2, 4, 5
	Capacitance	P 224 nos. 2, 3 P 228 nos. 2, 3, 5 P 233 nos. 1, 3	P 115 no. 2 P 116 nos. 3, 5 P 120 no. 1
	Induction Magnetic flux transformers	P 243 nos. 1, 2, 3, 4 P 247 nos. 3, 4	P 129 nos. 4, 5 P 132 no. 7 P 133 no. 8 P 149 no. 5
	Mutual inductance	P 253 nos. 1, 2, 3	P 137 no. 9
	Self inductance	P 253 nos. 4, 5 P 256 nos. 1, 2, 4, 5	P 142 no. 10
	AC generation and rms values rectification of ac	P 265 nos. 1a, 2a, 3a	P 151 no. 2 P 166 no. 1 P 169 no.
	Capacitor reactance	P 269 nos. 1, 2, 3	P 153 no. 3
	RC circuits and impedance	P 275 nos. 1, 2 P 279 nos. 1, 2	P 120 nos. 3, 5 P 158 no. 5 P 166 no. 2
	Inductor reactance	P 282 nos. 1, 2	P 155 no. 4 P 172 no. 8
	RL circuits and impedance	P 286 nos. 1, 2	P 160 no. 7 P 166 no. 3
	LCR circuits and resonance	P 289 nos. 1, 2 P 293 nos. 1, 2, 5	P 163 no. 8 P 167 no. 4 P 171 no. 7
AS 90522 Atoms, photons and nuclei	Photoelectric effect	P 176 nos. 2, 4 P 179 no. 2	P 175 nos. 1, 2 P 189 nos. 2, 3, 4 P 192 no. 6
	Atomic Spectra and hydrogen atom	P 183 no. 1 P 188 nos. 2, 3	P 178 no. 3 P 179 no. 4 P 189 no. 5c-f P 193 no. 7
	Radioactive decay, nuclear reactions, fission and fusion	P 194 no. 2	P 182 nos. 7, 8 P 185 no. 9 P 195 no. 8 P 196 no. 9
	Binding energy and mass deficit	P 199 nos. 1, 3	P 187 no. 11 P 197 no. 10